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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,792	10/12/2001	Hung-Ming Sun	0941-0338P	7753

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EXAMINER	
CHAWAN, SHEELA C	
ART UNIT	**PAPER NUMBER**
2625	3

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/974,792	SUN, HUNG-MING	
	Examiner	Art Unit	
	Sheela C Chawan	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The Examiner has approved drawings filed on 10/12/01.

Preliminary Amendment

3. Preliminary amendment filed on 10/12/01 has been entered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ganapathy et al., (US.6,411,953 B1).

As to claim 1, Ganapathy discloses a method of interactive image retrieval based on user, specified regions (regions are specified based on luminance and chrominance

components which are used for the extraction of color-based information, abstract, column 2, lines 47-51, column 3, lines 2- 17), comprising:

providing a sample image (column 2, lines 57- 60, input image as query image correspond to sample image, which is supplied by the user on which search will be based on. The query image may be an image selected from a scanned image supplied by the user in the form of sketch, column 18, lines 1-7);

dividing the sample image into a plurality of regions (dividing the query image into to plurality of regions by decomposing them into two color components, the Luminance are used for extraction of color based information and the Chrominance are used for extraction of texture based information, see column 8, lines 1-11);

selecting one or more sample regions for feature extraction and defining corresponding logic operators, by (1) selecting the regions based on a set of vocabulary perceptual criteria used in comparison between color and texture information, 2) dimension and distance measure, 3) Based on grammar rules i.e. a set of predetermined rules based on logical combinations using operations such as OR, AND, XOR, and NOT rules, column 2, line 66 through column 3, line 17, column 17, lines 56-67. The system receive the selected image in the form of an input image A submitted in conjunction with a query from the user, the system also generates a distance measure characterizing the relationship of the selected image to another image stored in a database, by applying a grammar, comprising a set of predetermined rules, to the color and texture information extracted from the selected image and corresponding color and texture information associated with the stored image, see

column 7, lines 23- 36, column 8, line 47 through column 9, line 29, column 13, lines 30- 53, column 15, lines 1-13) .

constructing a composite query instruction (constructing a composite query based on color feature and texture feature are combined to find a best matching, column 18, lines 6-34) based on the selected sample regions (see fig 1 and 2) and their corresponding logic operators and searching the image database according to the composite query instruction (column 6, line 26 through column 7, line 36, column 16, lines 66 –67, column 17, line 1 through column 18, line 5).

As to claim 2, Ganapathy discloses the method comprising selecting the images that contain the regions corresponding with the composite query instruction (column 8, lines 1- 5, 47 through column 9, line 2).

As to claim 3, Ganapathy discloses the method wherein the step of dividing the sample image into a plurality of regions uses an edge detection (fig 3, 51 and 56) method to divide the sample image intro a plurality of regions (column 8, lines 6- 11, 23- 29, 41- 46, 50- 67).

As to claim 4, Ganapathy discloses the method wherein the step of dividing the sample image into a plurality of regions uses a color quantization method to divided the sample image into a plurality of regions (column 8, lines 47- 67, column 9, lines 5- 29).

As to claim 5, Ganapathy discloses the method wherein the step of dividing the sample image into a plurality of regions uses a region splitting and merging method to divide the sample image into a plurality of regions (column 4, lines 22-51; separating clusters and merging clusters provides splitting and merging process).

As to claim 6, Ganapathy discloses the method wherein the step of dividing the sample image into a plurality of regions uses a region growing method to divide the sample image into a plurality of regions (column 3, lines 57- 64; hierarchical cluster analysis (HCA) provides region or cluster growing process).

As to claims 7 and 12, Ganapathy discloses the method wherein the image features include color distribution (column 8, lines 41-60), texture (column 17, line 46 through column 18, line 5), position and shape (column 13, lines 54-65).

As to claims 8 and 13, Ganapathy discloses the method wherein the image features include tone, brightness (column 5, lines 45- 55, column 11, lines 19- 28) and chromatic saturation (column 17, line 47 through column 18, lines 1-5).

As to claims 9 and 14, Ganapathy discloses the method wherein the logic operators include "and", "or", "exclusive-or" and "not" (column 7, lines 1-20).

As to claim 10, see the rejection of claim 1 above.

As to claim 11, Ganapathy discloses the method comprising selecting the images that contain the regions corresponding with the composite query instruction (column 17, lines 47 through column 18, line 35, column 19, lines 2-30).

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Li et al., (US.5,930,783) discloses semantic and cognition based image retrieval.

Abdel-Mottaleb et al., (US.6,226,636 B1) discloses system for retrieving images using a database.

Jain et al., (US. 6,121,969) discloses visual navigation in perceptual database.

Abdel-Mottaleb et al., (US.6,163,622) discloses image retrieval system.

Mukherjea et al., (US.6,415,282B1) discloses method and apparatus for query refinement.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is 703-305- 4876. The examiner can normally be reached on Monday - Thursday 8 - 6.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SCC

Sheela Chawan
Patent Examiner
Group Art Unit 2625
October 7, 2004